

REMARKS

Claims 1-5 and 7-12 are pending in this application. Claims 1, 2, 4 and 5 have been amended, claim 6 has been canceled and claims 11 and 12 have been added by the foregoing amendment.

In response to the objections to the title, the title has been amended.

In exemplary embodiments, a processor array is disclosed. The processor array comprises an array of processor elements, wherein each of the processor elements comprises a modulo-n cycle counter, and wherein at least one of the processor elements is able to transmit control command signals to each of the other processor elements, each processor element being such that, on receipt of a control command signal, it acts on that signal only when its cycle counter reaches a predetermined value, and the one of the processor elements being such that it transmits control command signals only when its cycle counter takes a value which is within a predetermined range, the processor array further comprising a first connection between each of the processor elements, wherein the one of the processor elements is able to transmit synchronization control command signals on the first connection, and wherein each processor element acts on a synchronization control command signal received on the first connection by restarting its cycle counter.

Claims 1-6 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,963,609 ("Huang"). Claims 1-8 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,233,615 ("Goetz"). Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Huang in view of U.S. Patent No. 5,557,751 ("Banman"). Applicants respectfully traverse these rejections for the following reasons.

Huang discloses a system with a master unit and slave units that are separate IC devices. The master device transmits a transfer control signal which defines a window within which data transfer can take place. Huang fails to disclose each processor having a modulo-n counter and the counter being started in response to a synchronization control command signal. The Office Action appears to consider the “transfer control signal” as being equivalent to the “control command signal” as recited in the pending claims. Huang fails to disclose a master device being restricted in the times when it can send this (i.e. transfer control) signal.

Goetz discloses a counter being associated with each microprocessor but fails to describe a system where one of the processors generates the command signals. Each of the processors in Goetz is equivalent in that each is running the same software which would lead to each processor producing the same output and each receiving the same interrupts.

Huang and Goetz fail to disclose exemplary embodiments as recited in amended claim 1. At least for these reasons, claim 1 is patentable over Huang and Goetz. Claims 2-5 and 7-10, all of which depend on allowable claim 1 are also allowable.

As for new claim 11 (based on former claim 9), in the receive element of each processor, data is clocked into the register based on a clock signal that is derived from the transmitted data but is clocked out of the register based on a second clock signal. The two clock signals are neither taught nor disclosed in any combination of Huang and Banman.

As for new claim 12 (based on original claim 4), the “halt” feature is recited whereby any one of the processors can halt the operation of all of the processors by placing a signal on the halt line. The Office Action alleges that claim 4 is taught by Huang and Goetz.

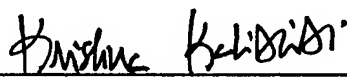
However, the cited portions of Huang fail to disclose slave devices making a halt request or the master device reacting to these requests by transmitting a "stop" command. Goetz fails to disclose processors generating halt request or processed by a specific one of the processors.

At least for these reasons, it is respectfully submitted that claims 11 and 12 are allowable over Huang and Goetz.

All of the rejections having been overcome, it is submitted that this application is in a condition for allowance and a notice to that effect is solicited. Should the Examiner have any questions relating to expediting the prosecution of this application, he is urged to contact the undersigned at the number provided below.

Respectfully submitted,

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